Policy actions such as:

- entry assistance to Mercury during the duopoly period and subsequent access deficit waivers;

- the concept of service providers used in cellular telephony and their subsequent extension to PCN;

- the price-cap on BT which generated the access deficit;

all illustrate the dynamic effects of regulatory distortions.

We understand the need to have policies, as discussed in Chapter 10, which can overcome barriers to entry. Competition requires competitors - some extreme versions of contestability theory aside. However open-ended policies which offer entry-assistance inevitably create addictive behaviour on the part of the beneficiaries who then resist being thrown onto the mercy of the market. The solution is not necessarily to abandon policies which seek to "greenhouse" competition in its early days, but rather to set clear and definite terms from the outset, so that business planning can take place in a stable policy environment based on market competition.

All of our comments on the various proposals in the consultative document are aimed at creating a regulatory framework which enables broad and sustainable competition, based on market signals and competitive competence.

U S WEST comments

The current framework and way forward

U S WEST strongly supports the integrated approach which OFTEL is taking in considering the related issues of pricing, interconnection and universal service obligations together; a policy designed to affect one will inevitably impact on the others. For example it is not just the BT price cap which constrains the development of new price structures, products and services. The interconnection regime, based on BT's retail prices, is an equally binding constraint. Breaking the link between BT retail pricing and interconnection is a necessary step to enable broad competition.

However while the issues need to be considered together, careful definition and delineation of terms is important. "Interconnection" is the means of fulfilling the public policy objective of "any to any" connection, and should refer simply and solely to the provision of call completion to operators who originate calls.

In a market with a number of competitors, each with roughly similar market share, it would be in every operator's self interest to seek interconnection with the other operators on fair and equal terms. While there would need to be competition rules - to prevent cartels and other market-sharing agreements - there would be no need for further regulation. Self-interest would ensure an efficient and equitable interconnection regime. However if one operator has considerable market power, regulation of the interconnection regime will be necessary if competition is to develop and "any to any" calling to be assured.

A dominant operator with 95% of the market can offer a more attractive service to a prospective customer - one which reaches 95% of people with telephones - than an operator with a 5% market share. It is therefore in the dominant operator's self-interest to make interconnection as difficult and expensive as possible, and in the public interest to ensure that regulation prevents this abuse of a dominant position.

Interconnection does *not* refer to any other services which any operator - or service provider or customer - might want to buy from a telecommunications operator, such as long distance trunking or bypass. The extent to which these other services are provided in a competitive market may vary and, until broad competition has evolved, there may need to be some temporary regulation; but such regulation should be very different from the oversight of call termination.

A clear understanding of forward looking long run incremental costs - LRIC - provides the basis for separating out the different cost-drivers of telecommunications service. LRIC facilitates the objective and transparent separation of Access Deficit Contributions (ADCs) from the Universal Service Obligation (USO), and of the USO from interconnection.

U S WEST has argued previously against the principle of "access deficit contributions"; we believe that the use of LRIC based on a "bottom-up" approach to identifying and quantifying cost drivers will demonstrate that, in practice, this supposed deficit is an artifice of arbitrary fully-allocated costing methods. We strongly support the statement in paragraph 2.6 that "*the status quo is not an option*" in terms of ADC policy.

We regret the decision to exclude the issues of the current price-cap and geographic averaging from the scope of the review. In the light of our response to issues raised elsewhere in the consultative document, we believe that the policy difficulties surrounding the price-cap and geographic de-averaging can be simply and straightforwardly resolved.

In the case of averaging:

- de-averaging already exists by time of day, without causing any apparent difficulties in the market.

- "geographic" averaging in any meaningful sense is largely a myth. While line rentals are the same price across the country, call charges are only averaged in nominal terms. The price of a call unit is the same, but what a unit can actually buy varies considerably in different parts of the country.

  For example, a poor household in Sunderland can reach far fewer people than a rich household in London, for one unit's worth of a local call, because of the arbitrary boundaries of local calling zones.

- extreme geographic de-averaging would entail extensive and costly changes in billing systems, and complicate national marketing campaigns, making comprehensive de-averaging unlikely.

- if further geographic de-averaging is justified by the cost of service provision in some areas, pushing prices above some "affordability threshold", this should be treated as part of the USO.

In the case of the price-cap, we believe that competitive pressure in many segments of the marketplace is already sufficient to ensure that efficiency gains and the benefits of technological advances are passed on to the consumer. It is important to look at competition "in the round" and not simply at "like for like" alternatives. For example there are over 3½ million mobile phone subscribers in the UK and over ½ million cable telephone lines (with a quarterly growth rate of over 100,000 lines in the third quarter of 1994).

In any event we believe that a thorough and open examination of the effects on the market of both geographic averaging and the price-cap would yield enormous benefits. Clear understanding of the extent to which these policies distort entry signals would assist operators in making entry decisions. The parallel with the universal service obligation is illustrative; this was widely held to be an enormous burden but, on closer examination, studies have shown that the actual costs are relatively modest.[1] If OFTEL adopts U S WEST's proposal to grant pricing flexibility to British Telecom, the apparent cross subsidy to residential services that today comprises much of the access deficit would disappear. To the extent this does not occur, the current distortions and pressures on interconnection charges will continue. Because the potential costs of the USO have been more clearly established, reform of how the USO is funded presents a much reduced risk to new entrants. Lack of information can, in itself, serve as a very effective barrier to entry.

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[1] See Report 64 Summary, Minister for Transport and Communication, Australia; Carol Weinhaus, Sandra Makeef, Peter Copelan et al, *"What is the Price of Universal Service? Impact of Deaveraging Nationwide Urban/Rural Rates"*. The Telecommunications Industry Analysis Project, July 1993, concluded that 92.7% of rural households in the United States would be willing and able to afford the full cost of serving them. Claire Callender, *"Barriers to Universal Telephone Service: Initial Findings"*, Analysys 1994, finds that 6% of British households surveyed that have no telephone, and that 19% of that 6% perceived no need for usage charges, while installation costs represented 27% of the 6%'s resistance.

OFTEL's Options

The consultative document, in chapters 3 to 7, puts forward and discusses four options for regulatory reform.

Option 1 - Reform of the existing ADC regime.

U S WEST has previously argued against the concept of an "access line deficit". To reiterate our position, we do not believe that any sensible separation can be made between the provision of exchange lines and call usage. It is rather like Sainsbury's arguing that they make a terrible loss on the provision of supermarkets, while ignoring the profit they make from selling their goods. The "access line deficit" is an accounting deficit, not a cash deficit.

If OFTEL is to replace regulatory fixes with policies truly designed to enable economic competition, then the whole notion of ADCs must be swept away.

Chapter 3 considers four possible reforms:

- changing the definition of ADCs;
- lowering the rates of return on access;
- spreading ADCs evenly across all calls; and
- raising the ceiling on waivers.

Each of these non-exclusive reforms would simply add another "regulatory fix" to the policy mix. Some operators would win, others would lose while the market as a whole would suffer as yet more complex, uncertain and impermanent regulation distorts entry signals. Such attempts to deal with market distortion through further distortion do great damage to investor confidence as they increase uncertainty and emphasise the arbitrariness of policy.

The only ADC reform that would truly benefit competition - as opposed to some individual competitors - would be abolition.

Option 2 - Incremental Costs

U S WEST has long argued against the use of fully allocated costs as the basis of setting interconnection charges and have instead called for the adoption of a regime based on forward-looking long run incremental costs (LRIC). We therefore strongly support OFTEL's conclusion, in paragraph 4.7, that "*for the purpose of determining interconnection prices, the appropriate measure is long run average incremental cost*".

LRIC is a fair basis for interconnection because, when constructed through a "bottom up" approach, it is a secure form of calculating costs and ensures that operators are fully compensated for the costs they incur in interconnecting with other operators, including a fair return on any capital employed. At the same time, because LRIC is forward looking, competitors are not paying for inefficiencies in an operator's network.

One of the major difficulties in using LRIC methodology has always been the difficulty, in practice, of defining and then calculating the LRIC for a particular action. U S WEST has demonstrated through the various ICAS workshops that it can be done; indeed U S WEST has contributed models which are helping enable the calculation of actual costs.

The LRIC methodology separates interconnection from retail pricing structures, freeing new entrants and competitors from the shackles of BT's service definitions and pricing structures. This much-needed reform is critical to enabling full-scale consumer choice.

Mark-Ups to LRIC

The *purpose* of LRIC is to ensure that interconnected operators fully re-imburse each other for the costs incurred - but only the costs incurred - in their interconnection. Arbitrarily increasing these sums by some mark-up, to bridge the gap between LRIC and accounting measures of the *total* cost of yesterday's network in today's prices, rather defeats the object of using LRIC in the first place.

Interconnection is a vital part of telecommunications public policy because it preserves "any-to-any" calling and a seamless network. Operators should be recompensed for costs incurred in interconnection; but that is all. Interconnection is a means of surmounting the externality that an originating operator, in order to complete their customer's transaction, may need to terminate their call on another operator's network.

The provision of call completion, as part of the public policy goal of "any-to-any" calling, is more properly seen as a cost which should be recovered, rather than as a source of revenue. Operators should make their "mark-ups" on their retail services which, given our narrow definition of interconnection, will form the overwhelming bulk of their income. This distinction between interconnection and retail sales is critical.

Telephone operators do not set-up in service to charge each other for interconnection; their aim is to retail service to customers. It is these retail customers who should pay for the "overhead" costs of operating the company; billing systems, corporate advertising, board salaries and so forth. If the company is a successful competitor, it will make profits in the market; if not, not. It is the job of each company to cover its

own overheads and - if it can - make a profit. It is not the job of other operators to ensure that one particular company's overheads are met, through passing on interconnection mark-ups to their customers.

There are different classes of retail customer - households, small businesses, large users, service providers, or other operators; however all are choosing to buy a service from an operator in an increasingly competitive marketplace which offers increasing choice.

In any case, there are considerable problems with the distorted market signals which any particular methodology for calculating mark-ups would necessarily send. These are discussed fully in the Appendix.

U S WEST therefore believes that a correctly calculated LRIC, which includes an appropriate rate of return for capital employed, is the correct basis for interconnection tariffs and no further mark-up should be added.

Option 3 - the balance of rental and call tariffs

The current constraint on BT's exchange line rental price (RPI+2% for domestic, RPI+5% for wholesale) is, as OFTEL recognise, the source of much market distortion. Indeed the whole access deficit debate would, at a stroke, be obviated if this constraint was removed. On the other hand, OFTEL have rightly been concerned over the impact the removal of this constraint would have on consumers unable to access an alternative local loop telephony provider.

We agree with OFTEL's conclusion that removing the constraint on BT would "*not lead to a real rise in real terms in the telephone bill of most residential consumers*", because of the arguments set down by OFTEL in paragraph 5.6.

Any small minority of consumers who might be adversely affected by radical re-balancing of BT's tariffs can, where appropriate, be protected as part of the Universal Service Obligation.

U S WEST therefore strongly supports the proposal that BT should be released from the constraint on exchange line rental prices. This should be combined with a LRIC interconnection regime, which includes an appropriate rate of return for capital employed; we oppose the rider in Option 3 that there should be some form of mark-up on incremental costs.

Option 4 - Minimum Regulatory Intervention

U S WEST has previously argued to OFTEL in favour of a regulatory regime which *"distinguishes between those transactions which can be regulated by market forces, subject to general competition policy rules, and those where a necessary and enduring element of monopoly creates a bottle-neck which requires specific action by the regulator."* [2] This remains our view. We therefore welcome OFTEL's desire to minimise regulation and let market forces govern to the maximum extent possible. However we believe that regulatory exit is an impossible goal - the telecommunications sector will always need some oversight.

We believe that enduring regulatory duties in a competitive market must include:

1. ensuring a seamless, interconnected network for end-users;

2. allocating scarce public resources, such as radio spectrum;

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[2] U S WEST submission to OFTEL in response to *Interconnection and Accounting Separation*, July 1993.

3. protecting the environment, for example through regulating the use of code-powers;

4. enforcing consumer protection and fair trading;

5. serving as a public interest resolver of conflict.

And, in the short/medium term, the regulator must necessarily administer the transition from monopoly to a competitive market.

The weaknesses in the UK competition policy framework create difficulties which often prevent effective regulatory action and which highlight the dangers of a premature "hands off" approach towards regulation. As long as BT retains a high degree of market dominance in the total industry, including local and long distance, oversight to manage the transition to competition will be needed.

Option Four discusses three variants:

Variant 1 is essentially the status quo, but with the addition of a general prohibition on anti-competitive practices. We do not believe that this would, in itself, constitute a significant reform although it would complement Option 3.

Both *variants 2 & 3* would represents more, rather than less, market-distorting regulation.

There must be enduring intervention in setting interconnection tariffs. However as competition develops there need not be any regulation of prices to consumers, service providers or other operators, other than through the application of general competition policy and fair trading legislation.

U S WEST therefore believes that regulation should focus on the areas outlined above and that none of the variants proposed in Option 4 are, in themselves, relevant to the key issue of removing the link between retail prices and interconnection costs.

Summary of options

U S WEST believes that a modified Option 3 - a LRIC interconnection regime, including an appropriate rate of return for capital employed, with no mark-up and no specific constraint on BT's exchange line rental prices - provides the best basis for enabling sustainable competition.

Option 2, again with no mark ups to LRIC, is a distant second best, while Option 1 is irrelevant. Option 4 could usefully complement Option 3 or Option 2.

Timing

U S WEST believes that the modified Option 3 described above can be implemented immediately.

It is impossible to know, in advance, whether a move towards LRIC interconnection tariffs will combine with the current price cap to cause BT rate of return difficulties. We do not believe that the unquantifiable possibility of such an outcome should be allowed to stall progress on changes vital to the creation of a competitive market.

The Universal Service Obligation

Telecommunications public policy has long placed great emphasis on widening access to basic telephone services. The Universal Service Obligation (USO) is described by OFTEL as "*the requirement to provide consumers with direct access to a switched telephone network, and the ability to make and receive voice calls, at a reasonable price.*" There are thus two dimensions to the USO; service availability and price.

In the world of state-owned monopoly telephone companies, cross-subsidy between classes of customers - such as business to residential - was used to address affordability; further cross-subsidy sought to deal with service availability. The effectiveness of this approach in the UK is questionable; public borrowing constraints, coupled with the inevitable lack of innovation in distribution which accompanies monopoly, did not lead to the provision of "universal service".

As OFTEL notes in paragraph 12.5, penetration has increased by 12% since BT was privatised and competition introduced in 1984. And prices have, on average, fallen by 35% in real terms since 1984.

There are a number of factors which explain this dramatic improvement in sector performance. Competition, coupled with technological developments, has led to the innovative use of the technology mix - fibre optics, coaxial cable, copper and radio tails - to achieve overall economies that would not be possible in a single, centrally-planned network.

Operating within the limitations imposed by the interconnection regime and BT's retail pricing structure, new entrants - notably the cable companies - have sought to offer differentiated pricing packages which enable some classes of people to afford telephony for the first time.

Nevertheless, there may remain areas which are uneconomic to serve with existing technology, no matter how efficiently deployed; this may be primarily due to cost, for example in remote rural areas, or due to the poverty of potential subscribers, for example in some parts of the inner cities. The traditional method of dealing with these social problems, under monopoly, was, of course, to cross-subsidise. But the extent to which this approach actually succeeded in delivering a "universal service" is dubious. However, in any event, cross-subsidisation will not work in a competitive environment as it will send distorted pricing and entry signals.

Some form of direct subsidy is therefore needed to meet the social aspects of telephone public policy. Such subsidisation should be minimised through a number of routes.

For example the regulator could identify the needy areas and allocate them to service providers through a Dutch auction. The regulator would announce the level of subsidy per subscriber; if there are no takers, then the amount would be raised by an increment, until a provider steps forward. This mechanism ensures that the lowest possible subsidy needed to provide service would be paid. Prices would perform their proper role as a resource allocator and signal for entry decisions.

This approach could be used to address the issues surrounding the geographic de-averaging of prices. It would eliminate the problem of carrier of last resort, make subsidies explicit and efficiently targeted, spread the burden equitably and be flexible.

Anti-competitive behaviour

OFTEL has chosen to restrict the discussion over anti-competitive behaviour to changes to the scope of existing regulation which falls within OFTEL's current powers. Thus consultation is over whether it would be desirable to include a general provision in BT's licence prohibiting anti-competitive behaviour and *not* over whether primary legislation is required.

The problem with this approach, as OFTEL identifies in paragraph 9.5, is that the Director General's "*powers to modify licences and to make orders are limited. Remedies in damages or injunctions are not available to him or to third parties before an order is made.*"

Yet it is precisely the ability to bring about a swift and effective halt in anti-competitive practices, coupled with the ability to seek damages, which operators need if they are to avoid potentially fatal short-run losses of both income and customers. Paragraphs 9.21 and 9.22 recognise the importance of effective remedies; and that both OFTEL's and operators' ability to take such action is highly limited.

In our view, the major issue is not whether the rules governing BT's behaviour should be made more specific or more general, but that there should be a more effective means of *enforcing* the prohibitions on anti-competitive behaviour. We would therefore call on OFTEL to reconsider its position, to maintain the holistic approach which characterises the rest of the Consultative Document, and to put forward proposals which would provide telecommunications operators with effective protection from the abuse of a dominant position.

Pricing flexibility for large customers and the role of service providers

We are considering together the issues of pricing to large customers (chapter 11) and to service providers (chapter 13) because we believe both are operators' retail customers. Indeed PTOs, when purchasing retail services as opposed to interconnection, are also retail customers. These different groups are all simply purchasers of telecommunications services in the competitive marketplace.

Of course, to a PTO, they represent an attractive class of customer for two reasons. Firstly, as they are large users, there are economies of scale in servicing them. Secondly, they will all grow the total market for the company's services - *if* the company gets its retail pricing right.

Large users grow the market by purchasing more calls when the unit price is reduced. Service providers grow the market by stimulating calls which would otherwise not have been made - whether to access the Internet or hear the result of the Derby. Even service providers who are effectively providing simple resale are (by bundling together users through offering some service characteristics not offered by the operator - lower costs, more billing information etc) growing the overall market by acting as another distribution channel.

The scope for retail price flexibility

Once the interconnection regime has been reformed to bring tariffs into line with incremental costs, every operator should have the flexibility to alter their retail prices subject only to competition policy constraints which prevent predatory pricing or the abuse of a dominant position. This is normal behaviour in a competitive market and is in the interests of consumers and operators alike.

Paragraph 11.16 of the Consultative Document refers to "*discounts requiring careful vetting to ensure that they would not have some anti-competitive effect*", a time-consuming piece of "micro-market" regulation which is not the solution to anti-competitive practices. The only way to achieve retail pricing flexibility, while avoiding unfair competitive practices, is through enacting robust competition policy legislation.

Incremental costs should then serve as the floor for retail pricing. Of course the incremental costs for retail service are different to those for interconnection. One of the aims of the LRIC process is to strip away allocated costs which do not relate to the provision of interconnection. However such costs *must* apply to retail as they are incurred to attract, service or add-value to customers.

Thus, the LRIC for interconnection only includes those costs, including a rate of return on capital employed, necessarily incurred to provide interconnection, while the LRIC for retail includes all of the other aspects of the company's activities, from billing through to corporate donations.

Service providers

Question A in Chapter 13 asks why the USA enjoys a wider range of telecommunications services and service providers than the UK. The answer, we believe, is that the structure of telecommunications service - local loop service providers charging for local calls on a non-usage sensitive basis - has given an enormous boost to the provision of value added services. These services do not need to generate enough additional value to cover the cost of the call. Because of the different structure of the telecommunications sector in the UK, with local loop competition already in place, it is impossible to replicate these conditions exactly through regulation. Indeed, as competition develops in the US, the relationship between "toll" and "toll-free" services is also likely to change.

The interesting question for the UK is why the prospect of generating tremendous volumes of additional traffic through value-added services has not stimulated a plethora of innovative incremental cost-based tariff offers from telephone companies eager to stimulate growth and raise extra revenues. In the case of the new entrants, it is easy enough to identify the answer; BT retail price-based interconnection tariffs and the BT price cap serve to stifle innovation.

In the case of BT itself, the answer is less clear. We believe that it would clearly be in BT's commercial interests to seek to grow the market by encouraging as many distribution channels for its service as possible, with prices tailored to each channel. Indeed new entrants are attempting to do this within the constraints of the interconnection regime and price caps; Mercury One-2-One's free off-peak calls being perhaps the most well-known example.

As we believe that BT is not acting in its own best interests, it is difficult to determine what regulatory action, if any, should be undertaken to "force it to be free" from the monopoly mindset which still seems to dominate. New entrants need to struggle to acquire each and every customer. BT, with its massive installed base, market dominance and high brand recognition, need merely wait for the customer to call. Unfortunately, this strategy sub-optimises the distribution of "plain old telephone service", not least because it restricts potential service providers and users' choice of innovative new services.

It is clearly important to avoid creating regulatory distortions through forcing the company to provide service packages to large users or value added service providers which are not economically efficient. And, of course, competition will in due course solve the problem.

The example of cellular service provision

The spectacular success of the cellular service providers in achieving high *penetration* should not be confused with the creation of *competition*. The relationship between the cellular duopolists and their service providers is more like that of a franchiser and franchisee than between independent retailers and the suppliers of goods or services. While the service providers compete aggressively over the initial "sign-on" prices for mobile phones - and the innovation they have shown here is largely responsible for the way that mobile-phones have swiftly rolled down the demand curve - there is virtually no competition over tariffs. Because they simply receive a discount on the retail price, each service provider charges the same rate for each tariff package. Nor has there been much competition over service levels - although this is changing as some service providers are beginning to offer a broader service, catering for all their customers telecommunications needs.

Other comments relating to service providers

Question (c) seeks views on the licensing of service providers. We believe that the current regime is too complicated, and that there should be two classes of licensee; PTOs (who provide physical access to the network) and Telecommunications Service Licences (TSL).

Questions (d), (e) and (f) address complicated technical issues relating to intelligent networks. U S WEST has participated in discussions with the FCC in the US concerning their regulation, and we would like to be part of a similar process in the UK. We believe that this consultation should be conducted separately from the other issues raised in the Consultative Document.

Question (g) relates to access to numbering. We believe that numbers should be allocated equitably to organisations according to the purpose to which they will be put, rather than the nature of the company requesting the number. Thus all PTO's, when requesting numbers in their capacity as a PTO, should be treated equally. However if a PTO wishes to provide a service - such as a calling card - that company should not be treated any differently to any other company, whether a large user, a service provider or another licensed operator, which wants to offer a similar service.

Alternatives to pence per minute charging for interconnection services

We believe that it is likely that the "bottom-up" calculation of LRIC will establish that most, if not all, cost drivers in interconnection are not per-minute of usage based. The public policy imperative is that these costs, *whatever their structure*, are used as the interconnection tariff. They should not disadvantage any economically efficient competitor.

If an operator wishes to purchase a service on another basis - such as pence per minute - which does not reflect the LRIC of interconnection then that is a commercial matter for negotiation by that operator. The only interconnection tariff which should be made available is that which accurately reflects the cost drivers of the service. Where there is sufficient competition, and an equitable interconnection regime, BT's retail pricing structure, subject to competition and fair trading constraints, should be a matter for BT.

Conclusion

U S WEST welcomes the opportunity to comment on what we believe is the most significant regulatory review paper published by OFTEL. To summarise our comments, we believe that OFTEL should distinguish between two types of telecommunications service; interconnection and retail.

"Interconnection" should be tightly defined as those service components essential to call completion. The tariff for interconnection should be calculated through a "bottom up" approach which identifies the cost drivers and their long run incremental cost (LRIC), including the appropriate contribution to the cost of capital. There should be no arbitrary mark-up to this LRIC, as any attempt to add common or overhead costs will distort the market, serve as a barrier to effective competition and operate against the public good of "any to any" calling.

"Retail" covers all the other services which operators provide in the marketplace. Operators should recover all of their overhead costs from these retail services. Competition will force operators to allocate these costs to services in the most efficient manner.

In general, operators should have the freedom to tailor their prices to the market, subject to competition and fair trading rules. However there may be a short-term need, as competition develops, for regulatory action to prevent dominant operators exploiting their market power in parts of the market which are nominally competitive but which are, in practice, dominated by one or two operators.

Appendix

Detailed comment on the proposed mark-ups to LRIC

The Efficient Component Pricing Rule (ECPR)

The ECPR depends on a number of assumptions about the market-place which, in the case of telecommunications, are clearly not valid:

- perfectly substitutable, homogeneous products;
- competition only through price;
- a single technology used by all service providers;
- efficiently costed operations by the incumbent;
- incumbent prices equal to social marginal costs, based on the best available technology.

If these assumptions *were* to hold, then there would be no basis for competitive entry since society's resources would be already used to maximum efficiency and social welfare could not be improved by competition.

We agree with the criticisms of ECPR made by OFTEL in paragraphs 4.23-4.25. It is effectively a tool to protect incumbent monopolists.

Ramsey pricing and the inverse elasticity rule

When unable, because of natural monopoly, to adopt the best pricing rule of marginal costs, the "second best" approach is to seek to use that set of prices which will cause the least economic distortion, measured in terms of how those prices will change the pattern of consumption.

The solution to this "second best" approach proposed by Ramsey is known as the "inverse elasticity rule". This approach segments customers into groups according to their elasticity of demand, that is to say from those who are most price sensitive - any increase in price will stop them using the product all together - whose demand is perfectly elastic, through to those who are the most price insensitive - a price increase will have no impact on the amount that they consume - whose demand is perfectly inelastic. The more inelastic the demand, the higher the price charged.

This approach ensures that total consumption remains as close as possible to the level that it would have had the price equalled marginal cost for all customers, with this being sufficient for the firm to break-even.

However there are two policy problems to this approach:

- by setting the highest prices for the most inelastic customers, the heaviest burden is being placed on those who depend upon the product most. This may have undesirable social policy consequences;